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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,168	03/06/2002	Sridhar Satuloori	5681-08800	9232

7590 02/28/2007
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EXAMINER

ZHEN, LI B

ART UNIT	PAPER NUMBER
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2194

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/092,168

Applicant(s)

SATULOORI ET AL.

Examiner

Li B. Zhen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 16-25, 27-39 and 41-52 is/are rejected.
- 7) ☒ Claim(s) 13, 26, 40 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/17/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 14 and 16 – 53 are pending in the application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/27/2006 has been entered.

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

4. Claims 13, 26, 40 and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 1-12, 14, 16-25, 27-39 and 41-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0023953 to Lucassen et al. [hereinafter Lucassen, cited in the previous office action] in view of U.S. Patent Application Publication No. 2002/0104067 to Green et al. [hereinafter Green].**

8. As to claim 1, Lucassen teaches the invention substantially as claimed including a system [MVC-based development system; p. 2, paragraph 0017], comprising:

a processor [p. 7, paragraph 0067];

a computer-accessible medium coupled to the processor, wherein the computer-accessible medium is configured to store program instructions executable by the processor [Tier-2 comprises the business logic that runs on a Web application server,

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Web server; p. 7, paragraph 0067; examiner notes that the MVC framework includes servers and a processor and memory to store program instructions are inherent to the servers] to implement an application program [a application 50, Fig. 5; p. 11, paragraph 0105] comprising:

one or more application modules [an application data layer 51, a business logic layer 52, an interaction logic layer 53 a customization layer 54, and application process 55; p. 11, paragraph 0105], wherein at least a first one of the application modules comprises a first dynamic component [interaction logic layer 53; p. 11 – 12, paragraph 0107] and a static component [application data layer 51 comprises data content, file services and databases, and comprises all of the backend information; p. 11, paragraph 0105], wherein the first dynamic component and the static component are configured to function according to an initial set of requirements for the application [ability of the system to use the best possible combination of interface modalities based on the user's current preferences, needs and abilities as well as the application requirements and device capabilities; pp. 4 – 5, paragraph 0041]; and

a dynamic component generator configured to receive a new set of requirements [meta-data; p. 12, paragraph 0108] for the application and generate a second dynamic component to replace the first dynamic component [That dynamically generates an interaction logic layer and customization which is then adapted at runtime; p. 3, paragraph 0029], wherein the second dynamic component is configured to function according to the new set of requirements [customization meta-data 54 and generates

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functional or customized presentations; p. 12, paragraph 0109 and p. 13, paragraph 0123].

Although Lucassen teaches the invention substantially, Lucassen does not specifically disclose determining whether the new set of requirements includes changes from the initial set of requirements and generating a second dynamic component to replace the first dynamic component if the new set of requirements includes changes from the initial set of requirements, wherein the dynamic component generator is configured to generate the second dynamic component to replace the first dynamic component by modifying or overwriting the first dynamic component.

However, Green teaches a model-view-controller framework [p. 10, paragraph 0122], determining whether the new set of requirements includes changes from the initial set of requirements [As additional requirements arise 60, new software components 20 are created, existing software components 20 modified 62, 64, or a combination thereof; p. 5, paragraph 0060] and if the new set of requirements includes changes from the initial set of requirements [application requirements is determined 70, either manually, heuristically, automatically, or by any combination thereof; p. 12, paragraph 0150], generate a second dynamic component to replace the first dynamic component [new software components 20 are created, existing software components 20 modified 62, 64, or a combination thereof; p. 5, paragraph 0060] wherein the dynamic component generator is configured to generate the second dynamic component to replace the first dynamic component [p. 5, paragraph 0060] by modifying [p. 5,

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paragraph 0064] or overwriting the first dynamic component [existing software components 20 modified 62, 64; p. 5, paragraph 0060].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Lucassen to incorporate the features of determining whether the new set of requirements includes changes from the initial set of requirements and generating a second dynamic component to replace the first dynamic component if the new set of requirements includes changes from the initial set of requirements, and generate the second dynamic component to replace the first dynamic component by modifying or overwriting the first dynamic component because Green's teachings allow application development to drive changes to the architecture using a set of life cycle rules [p. 4, paragraph 0059 of Green] and allow software components that do not fit the current architecture to be restructured to ensure conformance while retaining the original intent of the requirement [p. 5, paragraph 0061 of Green].

9. As to claim 14, Lucassen as modified teaches a method [p. 2, paragraph 0017 of Lucassen], comprising:

installing one or more application modules [an application data layer 51, a business logic layer 52, an interaction logic layer 53 a customization layer 54, and application process 55; p. 11, paragraph 0105 of Lucassen] each comprising a static component [application data layer 51 comprises data content, file services and databases, and comprises all of the backend information; p. 11, paragraph 0105 of Lucassen];

one or more dynamic component generators [interaction manager 57; p. 12, paragraph 0109 of Lucassen] receiving an initial set of requirements for the application modules [meta-data; p. 12, paragraph 0108 of Lucassen];

the one or more dynamic component generators [interaction manager 57; p. 12, paragraph 0109 of Lucassen] generating one or more initial dynamic components for the one or more application modules [That dynamically generates an interaction logic layer and customization which is then adapted at runtime; p. 3, paragraph 0029 of Lucassen], wherein the one or more initial dynamic components are configured to function according to the initial set of requirements [customization meta-data 54 and generates functional or customized presentations; p. 12, paragraph 0109 and p. 13, paragraph 0123 of Lucassen];

receiving a new set of requirements for the application modules [meta-data; p. 12, paragraph 0108 of Lucassen];

determining whether the new set of requirements includes changes from the initial set of requirements [application requirements is determined 70, either manually, heuristically, automatically, or by any combination thereof; p. 12, paragraph 0150 of Green]; and

if the new set of requirements includes changes from the initial set of requirements, generating one or more new dynamic components to replace the one or more initial dynamic components [As additional requirements arise 60, new software components 20 are created, existing software components 20 modified 62, 64, or a combination thereof; p. 5, paragraph 0060 of Green], wherein the one or more new

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dynamic components are configured to function according to the new set of requirements [p. 5, paragraph 0064 of Green], wherein said generating one or more new dynamic components comprises replacing the one or more initial dynamic components [p. 5, paragraph 0060 of Green] by the one or more new dynamic components by modifying [p. 5, paragraph 0064 of Green] or overwriting each of the one or more initial dynamic components [existing software components 20 modified 62, 64; p. 5, paragraph 0060 of Green].

10. As to claim 27, Lucassen as modified teaches a method [p. 2, paragraph 0017 of Lucassen], comprising:

installing one or more application modules [an application data layer 51, a business logic layer 52, an interaction logic layer 53 a customization layer 54, and application process 55; p. 11, paragraph 0105 of Lucassen], wherein at least a first one of the application modules comprises a first dynamic component [interaction logic layer 53; p. 11 – 12, paragraph 0107 of Lucassen] and a static component [application data layer 51 comprises data content, file services and databases, and comprises all of the backend information; p. 11, paragraph 0105 of Lucassen], wherein the first dynamic component and the static component are configured to function according to an initial set of requirements for the application [pp. 4 – 5, paragraph 0041 of Lucassen];

one or more dynamic component generators [interaction manager 57; p. 12, paragraph 0109 of Lucassen] receiving a new set of requirements for the application modules [meta-data; p. 12, paragraph 0108 of Lucassen];

the one or more dynamic component generators [interaction manager 57; p. 12, paragraph 0109 of Lucassen] determining whether the new set of requirements includes changes from the initial set of requirements [As additional requirements arise 60, new software components 20 are created, existing software components 20 modified 62, 64, or a combination thereof; p. 5, paragraph 0060 of Green]; and

if the new set of requirements includes changes from the initial set of requires [As additional requirements arise 60, new software components 20 are created, existing software components 20 modified 62, 64, or a combination thereof; p. 5, paragraph 0060 of Green], the one or more dynamic component generators generating a new dynamic component to replace the first dynamic component [That dynamically generates an interaction logic layer and customization which is then adapted at runtime; p. 3, paragraph 0029 of Lucassen], wherein the new dynamic component is configured to function according to the new set of requirements [customization meta-data 54 and generates functional or customized presentations; p. 12, paragraph 0109 and p. 13, paragraph 0123 of Lucassen], wherein said generating comprises replacing the first dynamic component [p. 5, paragraph 0060 of Green] with the new dynamic component by modifying [p. 5, paragraph 0064 of Green] or overwriting the first dynamic component [existing software components 20 modified 62, 64; p. 5, paragraph 0060 of Green].

11. As to claim 41, this is a product claim that corresponds to system claim 1; note the rejection to claim 1 above, which also meet this product claim.

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12. As to claim 2, Lucassen teaches the dynamic component generator does not change the static component in response to the new set of requirements [p. 11, paragraph 0105].

13. As to claim 3, Lucassen teaches the dynamic component generator is configured to generate a second dynamic component to replace the first dynamic component by modifying the first dynamic component in response to the new set of requirements [p. 15, paragraph 0146].

14. As to claim 4, Lucassen teaches the dynamic component generator is configured to replace the first dynamic component by overwriting the first dynamic component in the computer-accessible medium in response to the new set of requirements [interaction logic (some elements can be added, remove or replaced; p. 12, paragraph 0108].

15. As to claim 5, Lucassen teaches the new set of requirements is formatted according to an extensible Mark-up Language (XML) schema and stored in the computer-accessible medium [data models 22 (or data type primitives) are XML Schema compliant; p. 6, 0059].

16. As to claim 6, Lucassen teaches the one or more application modules comprise a second application module comprising a static component and a dynamic component [p. 11, paragraph 0105].

17. As to claim 7, Lucassen teaches the dynamic component generator is configured to generate a new dynamic component [p. 3, paragraph 0029] for the second application module in response to receiving the new set of requirements [meta-data; p. 12, paragraph 0108].

18. As to claim 8, Lucassen teaches another dynamic component generator for the dynamic component of the second application module, wherein the other dynamic component generator is configured to generate a new dynamic component for the second application module [p. 3, paragraph 0029] in response to receiving a new set of requirements for the second application module [meta-data; p. 12, paragraph 0108].

19. As to claim 9, Lucassen as modified teaches the first application module is a controller module [Controllers C1, C2 and C3; p. 2, paragraph 0014 of Lucassen], wherein the static component as a router component configured to receive user input [composite business software component 20 is static; pp. 6 – 7, paragraph 0086 of Green] and wherein the dynamic component is an application logic component coupled to the router component [interaction logic layer 53; p. 11 – 12, paragraph 0107 of Lucassen], wherein the application logic component is configured to function according to a current set of application requirements in response to the user input [customization meta-data 54 and generates functional or customized presentations; p. 12, paragraph 0109 and p. 13, paragraph 0123 of Lucassen].

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20. As to claim 10, Lucassen teaches the application logic component comprises an Enterprise Java Bean (EJB) session bean [p. 11, paragraph 0095].

21. As to claim 11, Lucassen teaches the first application module is a model module [Model M; p. 5, paragraph 0044], wherein the static component is a static data model configured to function independent of an application data representation [p. 11, paragraph 0105], and wherein the dynamic component is a dynamic data model configured to function dependent upon the application data representation [p. 12, paragraph 0109 and p. 13, paragraph 0123] and according to a current set of application requirements [meta-data; p. 12, paragraph 0108] in response to the user input [p. 3, paragraph 0029].

22. As to claim 12, Lucassen teaches the dynamic data model comprises an Enterprise Java Bean (EJB) entity bean [p. 11, paragraph 0095].

23. As to claim 16, Lucassen teaches the generating one or more new dynamic components comprises replacing the one or more initial dynamic components by the one or more new dynamic components by modifying the each of the one or more initial dynamic components in response to the new set of requirements [p. 15, paragraph 0146].

24. As to claim 17, Lucassen teaches the generating one or more new dynamic components comprises replacing the one or more initial dynamic components by the

one or more new dynamic components by overwriting each of the one or more initial dynamic components in a computer-accessible medium in response to the new set of requirements [p. 12, paragraph 0108].

25. As to claim 18, Lucassen teaches the generating is performed by one or more dynamic component generators, wherein the one or more dynamic component generators are comprised within the same application as the one or more application modules [p. 3, paragraph 0029].

26. As to claim 19, Lucassen teaches the generating is performed by one or more dynamic component generators comprised within an application server container, wherein the application modules are comprised within the same application server container [interaction components 91, 92 register with the container 92 and the contact between the container 92 and components 90, 91 is programmed in the container 92; p. 15, paragraph 0151].

27. As to claim 20, Lucassen teaches the generating the static components comprised by the one or more application modules are not changed in response to the new set of requirements [p. 11, paragraph 0105].

28. As to claim 21, Lucassen teaches the new set of requirements is formatted according to an extensible Mark-up Language (XML) schema [data models 22 (or data type primitives) are XML Schema compliant; p. 6, 0059].

29. As to claim 22, Lucassen as modified teaches one of the one or more application modules is a controller module [Controllers C1, C2 and C3; p. 2, paragraph 0014 of Lucassen], wherein the static component is a router component configured to receive user input [composite business software component 20 is static; pp. 6 – 7, paragraph 0086 of Green], and wherein a dynamic component generated for the one of the one or more application modules is an application logic component [interaction logic layer 53; p. 11 – 12, paragraph 0107 of Lucassen] coupled to the router component [IGCRouter; p. 11, paragraph 0143 of Green], wherein the application logic component is configured to function according to a current set of requirements in response to the user input [customization meta-data 54 and generates functional or customized presentations; p. 12, paragraph 0109 and p. 13, paragraph 0123 of Lucassen].

30. As to claim 23, Lucassen teaches the application logic component comprises an Enterprise Java Bean (EJB) session bean [p. 11, paragraph 0095].

31. As to claim 24, Lucassen teaches one of the one or more application modules is a model module [Model M; p. 5, paragraph 0044], wherein the static component is a static data model configured to function independent of an application data representation [p. 11, paragraph 0105], and wherein a dynamic component generated for the one of the one or more application modules is a dynamic data model configured to function dependent upon the application data representation [p. 12, paragraph 0109

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and p. 13, paragraph 0123] and according to a current set of requirements [meta-data; p. 12, paragraph 0108] in response to the user input [p. 3, paragraph 0029].

32. As to claim 25, Lucassen teaches the dynamic data model comprises an Enterprise Java Bean (EJB) entity bean [p. 11, paragraph 0095].

33. As to claim 28, Lucassen teaches the generating is performed by one or more dynamic component generators, wherein the one or more dynamic component generators are comprised within the same application server as the one or more application modules [p. 3, paragraph 0029].

34. As to claim 29, Lucassen teaches the generating is performed by one or more dynamic component generator comprised within an application server container, wherein the one or more application modules are comprised within the same application server container [interaction components 91, 92 register with the container 92 and the contact between the container 92 and components 90, 91 is programmed in the container 92; p. 15, paragraph 0151].

35. As to claim 30, Lucassen teaches in said generating, the static component does not change in response to the new set of requirements [p. 11, paragraph 0105].

36. As to claim 31, Lucassen teaches in said generating, the second dynamic component replaces the first dynamic component by modifying the first dynamic component in response to the new set of requirements [p. 15, paragraph 0146].

37. As to claim 32, Lucassen teaches in said generating, the second dynamic component replaces the first dynamic component by overwriting the first dynamic component in a computer-accessible medium in response to the new set of requirements [p. 12, paragraph 0108].

38. As to claim 33, Lucassen teaches wherein the new set of requirements is formatted according to an extensible Mark-up Language (XML) schema and stored in the computer-accessible medium [data models 22 (or data type primitives) are XML Schema compliant; p. 6, 0059].

39. As to claim 34, Lucassen teaches wherein the one or more application modules comprise a second application module comprising a static component and a dynamic component [p. 11, paragraph 0105].

40. As to claim 35, Lucassen teaches generating a new dynamic component [p. 3, paragraph 0029] for the second application module in response to receiving the new set of requirements [meta-data; p. 12, paragraph 0108].

41. As to claims 36 and 37, these are similar in scope to claims 22 and 23; therefore, they are rejected for the same reasons as claims 22 and 23 above.

42. As to claims 38 – 39, these are similar in scope to claims 11 – 12; therefore, they are rejected for the same reasons as claims 11 – 12 above.

43. As to claims 42 – 48 and 51 – 52, these are product claims that correspond to system claims 2 – 8 and 11 – 12; note the rejections to claims 2 – 8 and 11 – 12 above, which also meet these product claims.

44. As to claims 49 – 50, these are product claims that correspond to system claims 9 and 10; note the rejection to claims 9 and 10 above, which also meet these product claims.

Conclusion

45. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent No. 7,080,350 to Saimi et al. discloses a method for developing web applications and each of the components of the servlet, JSP and Bean is defined in a one-to-one relationship corresponding to each screen image.

CONTACT INFORMATION

46. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LBZ

Li B. Zhen
Examiner
Art Unit 2194


2/13/2007